

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
8 January 2004 (08.01.2004)

PCT

(10) International Publication Number
WO 2004/003466 A2

(51) International Patent Classification⁷: **G01B 7/012**

(21) International Application Number:

PCT/GB2003/002810

(22) International Filing Date: 1 July 2003 (01.07.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0215152.0 1 July 2002 (01.07.2002) GB(71) Applicant (*for all designated States except US*): RENISHAW PLC [GB/GB]; New Mills, Wotton-under-Edge, Gloucestershire GL12 8JR (GB).

(72) Inventors; and

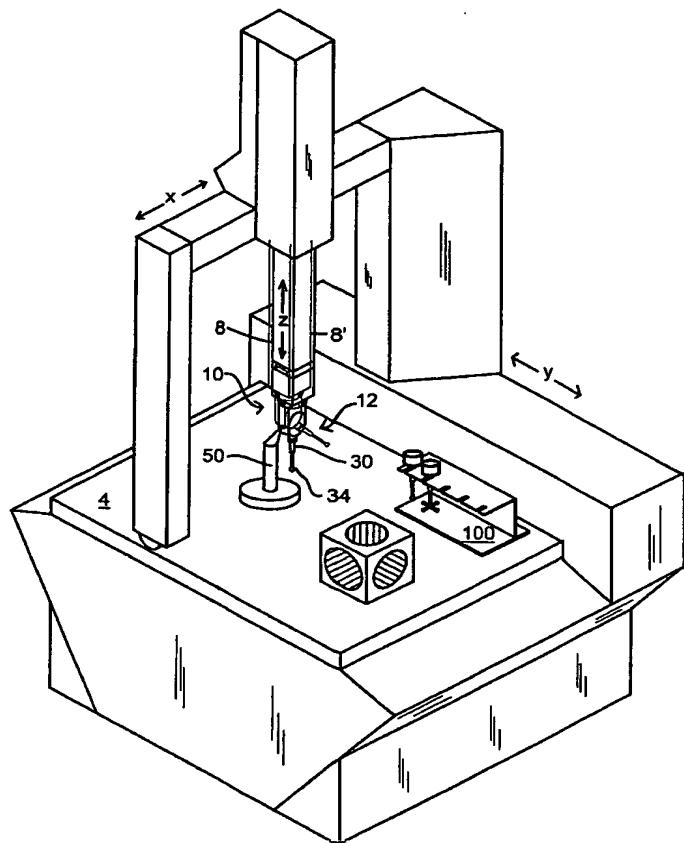
(75) Inventors/Applicants (*for US only*): McMURTRY, David, Roberts [GB/GB]; Park Farm, Stancombe, Dursley, Gloucestershire GL11 6AT (GB). McFARLAND,

Geoffrey [GB/GB]; The Manse, 22 Church Road, Upper Cam, Dursley, Gloucestershire GL11 5PG (GB).

(74) Agent: JACKSON, John, Timothy; Renishaw plc, Patent Department, New Mills, Wotton-under-Edge, Gloucestershire GL12 8JR (GB).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,*[Continued on next page]*

(54) Title: PROBE OR STYLUS ORIENTATION



(57) Abstract: Re-orientation of a stylus (30) or measurement probe (12) can be accomplished by engaging a part of the stylus or probe with a fixed part (50) and moving the probe in a spherical path centred at the engagement. The engagement (50) is spaced from the stylus tip (34) and avoids bending of the stylus during re-orientation. The re-orientation can take place into a plurality of e.g. repeatable rest positions by virtue of a kinematic array (e.g. balls (122) and rollers (120) Fig 2).